

NO_x Reductions: A Regulatory Update

2001 Conference on
Selective Catalytic Reduction and Non-Catalytic Reduction for NO_x Controls
Pittsburgh, PA
May 16-17, 2001

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In October 1998, EPA promulgated a rule to address long range transport of ozone by limiting summer season NO_x emissions in 22 Northeast States and the District of Columbia that the Agency believes are significant contributors to ozone nonattainment in downwind areas (63 FR 57356, October 27, 1998). These States were required to amend their SIPs through a procedure established in Section 110 of the CAAA. EPA finalized a summer-season State NO_x budget (in tons of NO_x) and developed a State implemented and Federally enforced NO_x trading program to provide for emissions trading by certain electric and industrial stationary sources. Each affected State's NO_x budget is based on the application of a population-wide 0.15 lb/mmBtu NO_x emission rate for large electricity generating units (EGUs) and a 60 percent reduction from uncontrolled emissions for large non-EGUs boilers and turbines, 30 percent reduction for large cement kilns and a 90% reduction for large IC engines. (Control levels that EPA believes are highly cost effective.) EPA also developed the framework for a multi-state NO_x Budget Trading Program that States could use to control large EGUs and large non-EGU boilers and turbines.

In addition to promulgating the NO_x SIP call, EPA responded to petitions filed by eight northeastern States under section 126 of the CAA. The petitions requested that EPA make a finding that NO_x emissions from certain major stationary sources significantly contribute to ozone nonattainment problems in the petitioning States. The final section 126 rule requires upwind States to take action to reduce emissions of NO_x that contribute to nonattainment of ozone standards in downwind States (64 FR 28250, May 25, 1999 and 65 FR 2674, January 18, 2000). The findings affect large EGUs and non-EGU boilers and turbines located in 12 northeast States and the District of Columbia. EPA has finalized a Federal NO_x Budget Trading Program based on the application of a population-wide 0.15 lb/mmBtu NO_x emission rate for large EGUs and a 60 percent reduction from uncontrolled emissions for large non-EGU boilers and turbines.

Litigation Status

SIPs were required to be submitted by September 1999 and sources which the States choose to regulate were required to comply by May 1, 2003. After extensive litigation, the DC Circuit upheld the NO_x SIP call in large part for 19 States and DC on March 3, 2000, but later changed the SIP submittal date to October 30, 2000 and the source compliance date to May 31, 2004 for issues that the Court did not remand to EPA. The court remanded four specific elements to EPA for further action. The Court remanded two issues on

procedural grounds (whether cogenerating units were considered EGUs or non-EGUs and reduction level for IC engines) and vacated and remanded the rule as it applies to Wisconsin, Georgia and Missouri.

Currently, the compliance deadline for the section 126 rule is May 1, 2003. However, approximately 40 parties challenged the section 126 final rule. On December 15, 2000 oral arguments were held before the DC Circuit Court. A decision by the Court is expected shortly.

Status of State Rules

As discussed above, SIP submittals were due October 30, 2000. Most States have started or completed the SIP approval process. Eight Northeast States submitted fully adopted rules prior, including a 2003 source compliance date (Connecticut, Delaware, Massachusetts, Maryland, New Jersey, New York, Pennsylvania, and Rhode Island). Alabama and Tennessee recently submitted fully adopted rules with a 2004 compliance date. North Carolina submitted adopted, temporary rule. West Virginia submitted a mix of adopted and draft rules. Seven other States have submitted draft rules of varying quality: Kentucky, Illinois, Indiana, Michigan, Ohio, South Carolina, and Virginia. Only the District of Columbia has not submitted a rule.

Status of Compliance

As discussed above the NO_x SIP call allowed for States to participate in a cap-and-trade program based on the application of a population-wide 0.15 lb/mmBtu NO_x emission rate for large electricity generating units (EGUs). A cap-and-trade system achieves cost-effective compliance by allowing the flexibility for sources to decide how to meet the limit and provides the regulatory framework to create an incentive for technological innovations in NO_x controls. For example, SCR had been used in Europe for years, generally achieving a 70 to 85 percent reduction. Now in the US in anticipation of the NO_x SIP call, SCR vendors are routinely giving guarantees of 90 percent reduction and greater. In addition, the cap-and-trade program creates an incentive to install a technology which can reduce emissions beyond the required level. The SIP call originally gave sources over three years to comply, providing time for sources to explore compliance options and the technology industry to respond. Through early reduction credits, the SIP call has encouraged sources to install controls early. At the time of promulgating the NO_x SIP call in 1998, EPA predicted that 73.3 GW of SCR would be installed to meet the NO_x SIP call compliance. To date, over 60 GW of SCR that has been announced for installation by May 2004. Some installations have already been completed and others are underway, thus many of these units may be eligible for early reduction credits.